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EXAMINER	
MENBERU, BENIYAM	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/966,030	PRABHAKAR ET AL.	
	Examiner	Art Unit	
	Beniyam Menberu	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/12/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments, see Remarks, filed December 22, 2005, with respect to the rejection(s) of claim(s) 1, 3, 14, 23, 25, and 26 under U.S. Patent No. 5222154 to Graham et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6832002 to Baatz et al and U.S. Patent No. 5809165 to Massen.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 25, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6832002 to Baatz et al.

Regarding claim 1, Baatz et al disclose a method for detecting and segmenting sweeps in a graphics image (column 8, lines 51-68), comprising the steps of:

a) detecting sweep segment information from one or more color channel histograms of the graphics image (column 18, lines 1-12; column 17, lines 1-17); and

b) segmenting the graphics image into sweep and non-sweep areas using the sweep segment information (column 12, lines 45-67).

Regarding claim 25, Baatz et al teaches all the limitations of claim 1. Further Baatz et al disclose the method as set forth in claim 1, wherein the sweep area is an area of uniformly changing colors and a non-sweep area is an area of uniform colors (column 12, lines 45-50, column 9, lines 48-67).

Regarding claim 26, Baatz et al teach all the limitations of claim 1. Further Baatz et al disclose the method as set forth in claim 1, wherein the one or more color channel histograms include a plurality of colors (column 18, lines 20-25).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6832002 to Baatz et al in view of Shafarenko (IEEE Transactions on Image Processing, Vol. 7, No. 9, September 1998).

Regarding claim 2, Baatz et al teaches all the limitations of claim 1. However Baatz et al does not disclose the method as set forth in claim 1, wherein the color channel histograms of step a) are in CIELUV color space.

Shafarenko discloses using CIELUV color space for the histogram (column 2, lines 3-9).

Baatz et al and Shafarenko are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the color space selection of Shafarenko with the system of Baatz et al to implement CIELUV color space based image segmentation.

The motivation to combine the reference is clear because Shafarenko teaches that the LUV color space is ideal for human vision system (page 1354, Introduction, first paragraph).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6832002 to Baatz et al in view of U.S. Patent No. 5809165 to Massen.

Regarding claim 3, Baatz et al teaches all the limitations of claim 1. However Baatz et al does not disclose the method as set forth in claim 1, step a) further including the steps:

c) transforming the graphics image to a three-dimensional histogram in color

space;

d) estimating two-dimensional histograms for each of the color channels from the three-dimensional histogram; and

e) processing each of the two-dimensional histograms to detect sweep segment information.

Massen discloses

c) transforming the graphics image to a three-dimensional histogram in color space (column 5, lines 33-53);

d) estimating two-dimensional histograms for each of the color channels from the three-dimensional histogram (column 3, lines 61-67; column 4, lines 1-10); and

e) processing each of the two-dimensional histograms to detect sweep segment information (column 4, lines 1-10,18-32).

Baatz and Massen are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the histogram processing of Massen with the system of Baatz to implement histogram processing to segment colors.

The motivation to combine the reference is clear because Massen teaches that color deviation can be detected efficiently using the method (column 2, lines 1-8)

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6832002 to Baatz et al in view of U.S. Patent No. 5809165 to Massen further

in view of Shafarenko (IEEE Transactions on Image Processing, Vol. 7, No. 9, September 1998).

Regarding claim 4, Baatz et al in view of Massen teaches all the limitations of claim 3. However Baatz et al in view of Massen does not disclose the method as set forth in claim 3, wherein the color space of step c) is CIELUV color space and the color channels of step d) are color channels in the CIELUV color space.

Shafarenko discloses the color space of step c) is CIELUV color space and the color channels of step d) are color channels in the CIELUV color space (column 2, lines 3-9).

Baatz et al, Massen, and Shafarenko are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the CIELUV color space teaching of Shafarenko with the system of Baatz et al in view of Massen to implement CIELUV based segmentation.

The motivation to combine the reference is clear because Shafarenko teaches that the LUV color space is ideal for human vision system (page 1354, Introduction, first paragraph).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6832002 to Baatz et al in view of U.S. Patent No. 5809165 to Massen further in view of U.S. Patent No. 6647131 to Bradski.

Regarding claim 5, Baatz et al in view of Massen teaches all the limitations of claim 3. However Baatz et al in view of Massen does not disclose the method as set

forth in claim 3, step d) further including the step: f) normalizing the two-dimensional histograms according to a predetermined scaling scheme.

Bradski discloses the method as set forth in claim 3, step d) further including the step: normalizing the two-dimensional histograms according to predetermined scaling scheme (column 7, lines 42-48;column 8, lines 24-28).

Baatz et al, Massen, and Bradski are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the histogram normalization of Bradski with the system of Baatz et al in view of Massen to implement normalized histogram processing.

The motivation to combine the reference is clear because normalization facilitates the computation of data.

9. Claims 6, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6832002 to Baatz et al in view of U.S. Patent No. 5809165 to Massen further in view of U.S. Patent Application Publication No. US 2002/0146173 to Herley.

Regarding claim 6, Baatz et al in view of Massen teach all the limitations of claim 3. However Baatz et al in view of Massen does not disclose the method as set forth in claim 3, step e) further including the steps:

f) detecting edges in each of the two-dimensional histograms to create corresponding edge maps ; and

g) performing a connectivity analysis of the edges in each of the edge maps.

Herley discloses the method as set forth in claim 3, step e) further including the steps:

f) detecting edges in each of the two-dimensional histograms to create corresponding edge maps (page 2, paragraph 17, lines 5-8, paragraph 18, lines 1-3, paragraph 21, lines 1-3), and

g) performing a connectivity analysis of the edges in each of the edge maps (page 2, paragraph 18).

Baatz et al, Massen, and Herley are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the edge detection/analysis taught by Herley with the system of Baatz et al in view of Massen to implement edge detection for image segmentation.

The motivation to combine the reference is clear because Herley uses edge detection for the detection of multiple objects in images (page 1, paragraph 5, lines 1-4).

Regarding claim 7, Baatz et al in view of Massen further in view of Herley teach all the limitations of claim 6. Further Herley discloses the method as set forth in claim 6, step e) further including the steps:

h) converting the detected edges in each of the edge maps to points in a Hough parametric space (page 2, paragraph 21, lines 1-3),

i) rendering lines from the Hough parametric space on the corresponding edge map (page 2, paragraph 21, lines 8-12), and

j) marking the overlap between the rendered lines and curves and the detected edges

on each of the edge maps (page 2, paragraph 21, 5-12).

Regarding claim 8, Baatz et al in view of Massen further in view of Herley teach all the limitations of claim 7. Further Herley discloses the method as set forth in claim 7, step e) further including the steps:

k) identifying pairs of parallel line segments in each of the edge maps (page 2, paragraph 22, line 3-9);

l) computing the mid-segment of each pair of parallel line segments in each of the edge maps to complete detection of the sweep segment information for each two-dimensional histogram (page 3, paragraph 33., paragraph 37); and

m) combining the detected sweep segment information (page 3, paragraph 35).

10. Claims 9, 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6832002 to Baatz et al in view of U.S. Patent Application Publication No. US 2002/0146173 to Herley.

Regarding claim 9, Baatz et al teach all the limitations of claim 1. However Baatz et al does not disclose the step:

c) performing post-processing on the input graphics image to reject segmenting that falsely identified any non-sweep portion of the image as a sweep area and vice versa (page 3, paragraph 29-30).

Herley discloses the step:

c) performing post-processing on the input graphics image to reject segmenting that falsely identified any non-sweep portion of the image as a sweep area and vice versa (page 3, paragraph 29-30).

Baatz et al and Herley are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the post-processing of Herley with the system of Baatz et al to implement rejection of false segment information.

The motivation to combine the reference is clear because it is necessary to filter out the falsely detected sweep information to generate accurate sweep information.

Regarding claim 10, Baatz et al in view of Herley teach all the limitations of claim 9. Further Herley discloses the method as set forth in claim 9, wherein the post-processing includes using a digital filter to reject small isolated areas of sweeps and non-sweeps (page 1, paragraph 16, page 3, paragraph 34, 36).

Regarding claim 11, Baatz et al in view of Herley teach all the limitations of claim 9. Further Baatz et al discloses the method as set forth in claim 9, wherein the post-processing includes computing gradient information and rejecting those sweep areas where the gradient in the image is less than a threshold (column 13, lines 26-40; column 14, lines 6-51).

Regarding claim 12, Baatz et al in view of Herley teach all the limitations of claim 11. Further Baatz et al discloses the method as set forth in claim 11, wherein the post-processing includes computing gradient information at several scales (column 15, lines 4-13).

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6832002 to Baatz et al in view of U.S. Patent Application Publication No. US

2002/0146173 to Herley further in view of Shafarenko (IEEE Transactions on Image Processing, Vol. 7, No. 9, September 1998).

Regarding claim 13, Baatz et al in view of Herley teach all the limitations of claims 9. Herley discloses post-processing including rejecting segmenting due to horizontal lines (Herley: page 3, paragraph 34). However Herley does not disclose detection in the U and V color channels.

Shafarenko discloses the use of the LUV color channels (Shafarenko: column 2, lines 3-9).

Baatz et al, Herley, and Shafarenko are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the CIELUV based system of Shafarenko with the system of Baatz et al in view of Herley to implement CIELUV based segmentation.

The motivation to combine the reference is clear because Shafarenko teaches that the LUV color space is ideal for human vision system (page 1354, Introduction, first paragraph).

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5809165 to Massen in view of U.S. Patent No. 6832002 to Baatz et al.

Regarding claim 14, Massen discloses a method for detecting and segmenting sweeps in a graphics image, including the steps of:

a) transforming an input graphics image to a three-dimensional histogram in color space (column 5, lines 33-53);

b) estimating two-dimensional histograms for each of the color channels from the three-dimensional histogram (column 3, lines 61-67; column 4, lines 1-10);

c) processing each of the two-dimensional histograms to detect sweep segment information (column 4, lines 1-10,18-32). However Massen does not disclose segmenting the input graphics image into sweep and non-sweep areas using the sweep segment information.

Baatz et al disclose segmenting the input graphics image into sweep and non-sweep areas using the sweep segment information (column 18, lines 1-12; column 17, lines 1-17; column 12, lines 45-67).

Massen and Baatz et al are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the segmenting of Baatz et al with the system of Massen to implement segmentation of sweep areas.

The motivation to combine the reference is clear because Baatz et al provides for an excellent method for segmenting for variable cases (column 3, lines 5-11).

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5809165 to Massen in view of U.S. Patent No. 6832002 to Baatz et al further in view of Shafarenko (IEEE Transactions on Image Processing, Vol. 7, No. 9, September 1998).

Regarding claim 15, Massen in view of Baatz et al teach all the limitations of claim 14. However Massen in view of Baatz et al does not disclose the method as set

forth in claim 14, wherein the color space of step a) is CIELUV color space and the color channels of step b) are color channels in the CIELUV color space.

Shafarenko discloses the method as set forth in claim 14, wherein the color space of step a) is CIELUV color space and the color channels of step b) are color channels in the CIELUV color space (column 2, lines 3-9).

Massen, Baatz et al, and Shafarenko are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the CIELUV based segmentation of Shafarenko with the system of Massen in view of Baatz et al to implement CIELUV based color segmentation.

The motivation to combine the reference is clear because Shafarenko teaches that the LUV color space is ideal for human vision system (page 1354, Introduction, first paragraph).

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5809165 to Massen in view of U.S. Patent No. 6832002 to Baatz et al further in view of U.S. Patent No. 6647131 to Bradski.

Regarding claim 16, Massen in view of Baatz et al teach all the limitations of claim 14. However Massen in view of Baatz et al does not disclose e) normalizing the two-dimensional histograms according to a predetermined scaling scheme.

Bradski discloses

e) normalizing the two-dimensional histograms according to a predetermined scaling

scheme (column 7, lines 42-48;column 8, lines 24-28).

Massen, Baatz et al, and Bradski are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the histogram normalization of Bradski to implement segmentation using normalized histogram data.

The motivation to combine the reference is clear because normalization facilitates the computation of data.

15. Claims 17, 18, 19, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5809165 to Massen in view of U.S. Patent No. 6832002 to Baatz et al further in view of U.S. Patent Application Publication No. US 2002/0146173 to Herley.

Regarding claim 17, Massen in view of Baatz et al teach all the limitations of claim 14. However Massen in view of Baatz et al does not disclose

e) detecting edges in each of the two-dimensional histograms to create corresponding edge maps;

f) performing a connectivity analysis of the edges in each of the edge map;

g) converting the detected edges in each of the edge maps to points in a Hough parametric space;

h) rendering lines from the Hough parametric space on the corresponding edge map; and

i) marking the overlap between the rendered lines and the detected edges

on each of the edge maps.

Herley disclose the method including:

e) detecting edges in each of the two-dimensional histograms to create corresponding edge maps(page 2, paragraph 17, lines 5-8; paragraph 18, lines 1-3, paragraph 21,lines 1-3);

f) performing a connectivity analysis of the edges in each of the edge map(page 2, paragraph 18);

g) converting the detected edges in each of the edge maps to points in a Hough parametric space(page 2, paragraph 21, lines 1-3);

h) rendering lines from the Hough parametric space on the corresponding edge map(page 2, paragraph 21, lines 8-12);

and

i) marking the overlap between the rendered lines and the detected edges on each of the edge maps(page 2, paragraph 21, 5-12).

Massen, Baatz et al, and Herley are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the edge detection analysis of Herley with the system of Massen in view of Baatz et al to implement edge detection for image segmentation.

The motivation to combine the reference is clear because Herley uses edge detection for the detection of multiple objects in images (page 1, paragraph 5, lines 1-4).

Regarding claim 18, Massen in view of Baatz et al further in view of Herley teach all the limitations of claim 17. Further Herley disclose the method as set forth in claim 17, step c) further including the steps:

j) identifying pairs of parallel line segments in each of the edge maps(page 2, paragraph 22, line 3-9);

k) computing the mid-segment of each pair of parallel line segments in each of the edge maps to complete detection of the sweep segment information for each two-dimensional histogram(page 3, paragraph 33; paragraph 37); and

l) combining the detected sweep segment information (page 3, paragraph 35).

Regarding claim 19, Massen in view of Baatz et al teach all the limitations of claim 14. Further Herley disclose the method as set forth in claim 14, further including the step:

e) performing post-processing on the input graphics image to reject segmenting that falsely identified any non-sweep portion of the image as a sweep area and vice versa(page 3, paragraph 29-30).

Regarding claim 20, Massen in view of Baatz et al further in view of Herley teach all the limitations of claim 19. Further Herley disclose the method as set forth in claim 19, wherein the post-processing includes using a digital filter to reject small isolated areas of sweeps and non-sweeps (page 1, paragraph 16; page 3, paragraph 34, 36).

Regarding claim 21, Massen in view of Baatz et al further in view of Herley teach all the limitations of claim 19. Further Baatz et al disclose the method as set forth in claim 19, wherein the post-processing includes computing gradient information and

rejecting those sweep areas where the gradient in the image is less than a threshold (column 13, lines 26-40; column 14, lines 6-51).

16. Claims 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5222154 to Graham et al in view of U.S. Patent No. 6832002 to Baatz et al.

Regarding claim 23, Graham et al disclose a method for detecting and segmenting sweeps in a graphics image, including the steps of:

converting an input graphics image to a color space (column 5, lines 56-65; column 7, lines 9-14);

projecting the image represented in the color space to a plurality of planes (column 7, lines 9-24, lines 49-67);

detecting curves in each plane (column 7, lines 17-43);

identifying pixels of the color associated with each detected curve and storing such pixel information (column 9, lines 43-68; column 10, lines 1-44). However Graham et al does not disclose combining the pixel information for each color to determine if pixels of that color are part of a sweep.

Baatz et al disclose combining the pixel information for each color to determine if pixels of that color are part of a sweep (column 8, lines 51-60; column 12, lines 45-67; column 13, lines 52-67; column 14, lines 1-22).

Graham and Baatz et al are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the segmentation of sweep taught by Baatz et al with the system of Graham to implement sweep segmentation of images.

The motivation to combine the reference is clear because Baatz et al provides for an excellent method for segmenting for variable cases (column 3, lines 5-11).

Regarding claim 27, Graham et al in view of Baatz et al teach all the limitations of claim 23. Further Baatz et al disclose the method as set forth in claim 23, wherein each pixel in the input graphics image is labeled as one of a sweep and a non-sweep based on a distance measure between a corresponding sweep segment and the pixel (column 12, lines 45-67).

17. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5222154 to Graham et al in view of U.S. Patent No. 6832002 to Baatz et al further in view of U.S. Patent No. 5861871 to Venable.

Regarding claim 28, Graham et al in view of Baatz et al teach all the limitations of claim 28. However Graham et al in view of Baatz et al does not disclose the method as set forth in claim 23, wherein the pixel information for each color is combined using a logical OR operation to determine if pixels of that color are part of a sweep.

Venable discloses the method as set forth in claim 23, wherein the pixel information for each color is combined using a logical OR operation to determine if pixels of that color are part of a sweep (column 7, lines 40-45; column 9, lines 32-39; column 10, lines 66-67; column 11, lines 1-9).

Graham et al and Baatz et al, and Venable are combinable because they are in the similar problem area of image segmentation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the logical OR method of Venable with the system of Graham et al in view of Baatz et al to implement color detection.

The motivation to combine the reference is clear because Venable teaches that when hue range is split as shown in Figure 7a (second range), color detecting has to be OR operation of the two separate ranges (column 10, lines 22-37, lines 57-67; column 11, lines 1-8).

Allowable Subject Matter

18. Claims 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Cited

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6516100 to Qian discloses image characterization method.

U.S. Patent No. 6947591 to Risson discloses identification of sky in digital image.

U.S. Patent No. 6731792 to Tanaka discloses color image dividing method.

U.S. Patent Application Publication Pub. No. US 2004/0090453 to Jasinschi et al disclose method/system for detecting segment boundaries.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Beniyam Menberu

BM

03/19/2006

KA Williams

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER